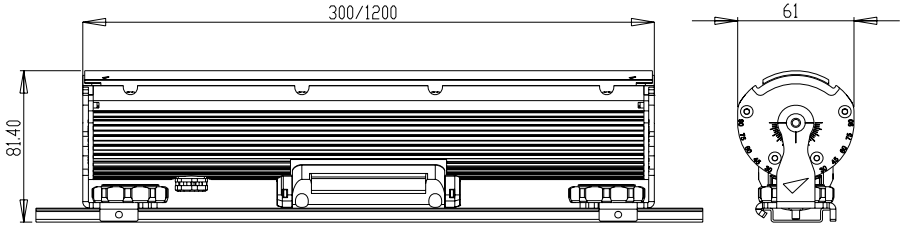
Tripix™
user manual

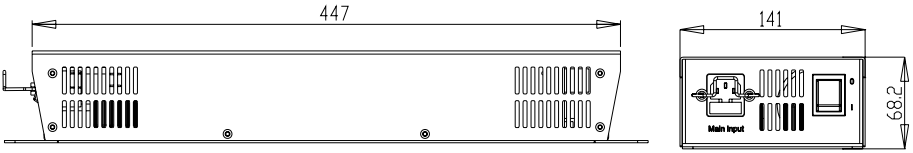
Martin®

Dimensions

All dimensions are in millimeters



Tripix™ 300 / Tripix™ 1200



Tripix Power™

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P/N 35000232, Rev. F

Safety Information

Warning! Read the safety precautions in this section before installing, powering, operating or servicing this product.

The following symbols are used to identify important safety information on the product and in this manual:

DANGER!
Safety hazard. Risk of severe injury or death.

Warning!
Hazardous voltage. Risk of lethal or severe electric shock.

Warning!
LED light emission. Risk of eye injury.

Warning!
Burn hazard. Hot surface. Do not touch

Warning!
Refer to user manual.

Warning! Do not view the light output with optical instruments or any device that may concentrate the beam.

This product is for professional use only. It is not for household use.

This product presents risks of severe injury or death due to fire hazards, electric shock and falls.

Read this manual before installing, powering or servicing the product, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture. Install and operate the fixture only as described in this manual and in accordance with local laws and regulations. Refer any operation not described in this manual to a qualified technician.

If you have questions about how to operate the fixture safely, please contact your Martin dealer or call the Martin 24-hour service hotline at +45 70 200 201, or in the USA on 1-888-tech-180.

PROTECTION FROM ELECTRIC SHOCK

- Shut down power to the entire installation at the main power distribution board and lock out power (by removing the fuse for example) before carrying out any installation or maintenance work.
- Disconnect the fixture from AC power before removing or installing any cover or part and when not in use.
- Connect the Tripix Power electrically to ground (earth).
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.
- Before using the devices, check that all power distribution equipment and cables are in perfect condition, are rated for the current requirements of all connected devices.
- Isolate all devices from power immediately if any cable, seal, cover or other component is damaged, cracked or deformed. Do not reapply power until repairs have been completed.
- The Tripix Power is for indoor use only.
- Refer any service operation not described in this manual to an authorized Martin Service partner.

PROTECTION FROM BURNS

- Do not operate the devices if the ambient temperature (Ta) exceeds 45° C (113° F).
- The exterior of the fixtures and Tripix Power becomes hot, up to 65° C (149° F) during normal operation. Ensure that accidental physical contact with the devices is impossible.
- Allow the fixture to cool for 5 minutes before servicing.
- Keep combustible materials (for example fabric, wood, paper) at least 20 cm (8 in.) away from the devices.
- Keep flammable materials well away from the devices.
- Do not modify the Tripix Power or fixtures in any way not described in this manual or install other than genuine Martin parts.
- Use only Martin approved accessories to mask or modify the light beam.
- Do not attempt to bypass fuses. Replace defective fuses with ones of the specified type and rating only.
- Install the strips outdoors and the Tripix Power indoors in a well-ventilated area only. Provide a minimum clearance of 5 cm (2 in.) and ensure unrestricted airflow around Tripix Power and the fixtures.

PROTECTION FROM INJURY

- Do not look at LEDs with a magnifying glass or any other optical instrument that may concentrate the light output.
- Ensure that all external covers, components and installation fittings are securely fastened.

- Block access below the work area and work from a stable platform whenever installing, servicing or moving the devices.
- Ensure that all supporting structures, surfaces, fasteners and lifting equipment can bear the weight of all the devices they are intended to support plus an adequate safety margin, and that they conform to local building and safety regulations.
- Use a sufficient number of fasteners with sufficient corrosion resistance, dimensions and strength to mount the DIN rail safely. Any nuts used must be self-locking.

Disposing of this product

Martin™ products are supplied in compliance with Directive 2002/96/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), as amended by Directive 2003/108/EC, where applicable.

Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of Martin products.

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Introduction

Thank you for selecting Tripix™, a compact IP66-rated LED-based color-changing striplight from Martin™. The Tripix is available in short 300 mm (11.8 inch) and long 1200 mm (47.2 inch) models. Both fixtures are powered by the Tripix Power™.

Diffuser filters that give wider beam angles are available from Martin.

This product features:

- RGB (red, green, blue) color mixing, with raw and calibrated RGB plus calibrated HSI and HSIC (hue, saturation, intensity, color temperature) color control options
- 81 W LED power and 1440 lumens total output (at narrow beam angle) from Tripix 1200
- 24 W LED power and 360 lumens total output (at narrow beam angle) from Tripix 300
- Tripix Power can drive up to twenty-four Tripix 300s or six Tripix 1200s, or any mixture of Tripix 300 and Tripix 1200 devices that not exceed 7.2 meters (23 ft. 7 in.)
- Possibility of controlling all fixtures attached to an Tripix Power as one single RGB, HSI or HSIC pixel
- One Tripix 1200 fixture can be controlled as four single RGB pixels
- DMX 512A control
- Clamp mounting system for standard 35 mm DIN rail
- 64 built-in stand-alone programs
- Master/slave functionality with 64 pre-programmed stand-alone shows available

For the latest firmware updates, documentation, product specifications and other information about this and all Martin Professional™ products, please visit the Martin website at http://www.martin.com

Unpacking

The following items are included with the Tripix fixture:

- 300 mm or 1200 mm strip light fixture with narrow beam angle diffuser installed
- Warning note
- Two short DIN rails

The following items are included with the Tripix Power:

- Tripix Power device
- Tripix Power Inserter cable
- This user manual
- DMX termination plug
- Two AC mains power cables (EU with Schuko plug, US without plug)

Using for the first time

Before applying power to the fixture:

- Carefully review “Safety Information” on page 3
- Check that the local AC power voltage is within the range listed on the Tripix Power serial number label
- Install the Tripix Power and Tripix fixtures as described in this manual

Physical installation

Warning! Read "Safety Information" on page 3 before installing the devices.

The safety and suitability of lifting equipment, installation location, anchoring method, mounting hardware and electrical installation is the responsibility of the installer. All local safety regulations and legal requirements must be observed when installing and connecting the devices. Installation must be carried out by qualified professionals only.

The Tripix fixtures must be clamped onto a DIN top-hat rail that is securely anchored to a suitable flat surface. Ensure that the supporting structure can bear the weight of all installed devices plus an adequate safety margin.

Make sure that there will be at least 5 cm (2 in.) of free space and unrestricted airflow around both the Tripix Power and the Tripix fixture.

Warning! Do not use the Tripix fixture without a diffuser filter installed.

Contact your Martin supplier for assistance if you have any questions about how to install this product safely.

Location and orientation

The Tripix fixtures are for outdoor installations with an IP rating of 66 while Tripix Power is for indoor use only;

- Do not bury the devices or locate them in a space that is more critical than IP66.
- Allow 5 cm (2 in.) free space around both the Tripix Power and the Tripix fixtures.
- Install the Tripix Power and the Tripix fixtures at least 20 cm (8 in.) away from any combustible materials (wood, paper, etc.) and well away from any flammable materials.
- The housings of the Tripix fixture and the Tripix Power reach temperatures up to 65° C (149° F). Restrict public access or locate the devices so that they cannot accidentally be touched.

Mounting

DIN rail

The Tripix fixture is designed for mounting on standard 35 mm top-hat DIN rail. You can use the standard 35mm DIN Rail or use the Short Martin DIN rail 35mm for a more comfortable installation.

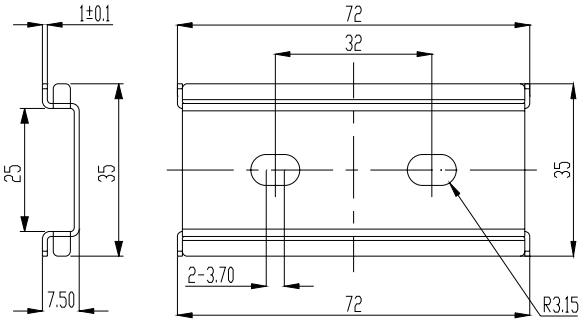

Figure 1: Short Martin DIN rail 35mm

Dimensions for the DIN rail supplied by Martin are given in Figure 1.

Note that you cannot fasten the Tripix fixture mounting clamps directly over screws used to fasten DIN rail to the mounting surface. If a DIN rail mounting screw is in the way of a mounting clamp, move it to another slot in the DIN rail.

Note that you must install extra screws through the DIN rail into the mounting surface to secure fixtures in vertical installations (see “Mounting the Tripix fixture vertically” on Page 11).

Mounting the Tripix fixture

Warning! The Tripix fixture must be mounted on a top-hat profile 35 mm (1.4 inch) DIN rail that is securely anchored to a surface. The installation must conform to local electrical, building, safety and fire regulations. If there is a danger that the fixture may cause injury or damage if it falls, use a means of secondary attachment such as safety cables looped around the fixture.

The short DIN rail from Martin (P/N 23819560) is just long enough to allow two Tripix fixtures to be mounted end-to-end.

To mount the fixture on a surface using 35 mm DIN rail:

1. Fasten the DIN rail securely to the mounting surface.
2. See Figure 2. The fixture mounting bracket has a hooked profile on one side (see A). Hook this profile over the top of the DIN rail and swing the bracket down. Use a 2.5 mm Allen key to tighten the mounting clamp screw (see B).

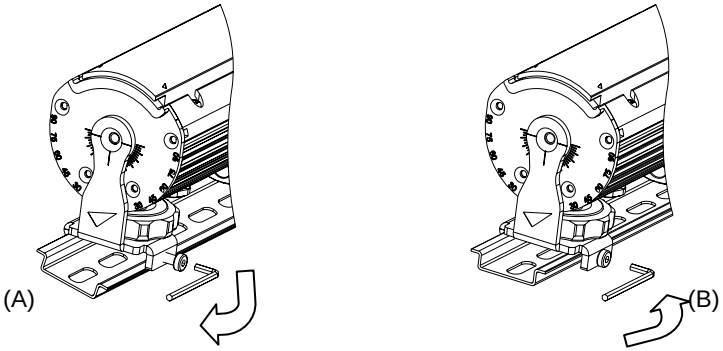

Figure 2: Mounting on DIN rail

Mounting the Tripix fixture vertically

The mounting clamp screws will not hold the product securely on the DIN rail if fixture is installed vertically. You must therefore insert screws in the mounting surface through the DIN rail mounting holes (see Figure 3) so that the fixture mounting clamps rest against these screws and secure the fixture.

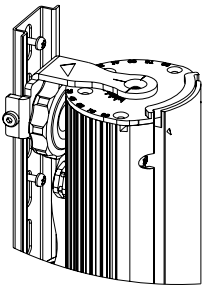

Figure 3: Vertical mounting on DIN rail

Adjusting tilt angle

The Tripix fixture can be tilted through 105°.

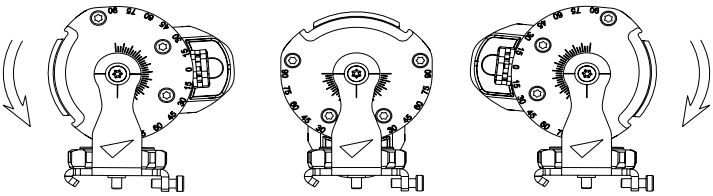

Figure 4: Tilt angle

To adjust the tilt angle:

1. See
   Figure 5. Turn the locking knob clockwise until it releases the fixture profile.
2. Adjust the fixture to the desired tilt angle
3. Rotate the locking knob counter-clockwise until it engages in the fixture profile and locks it in position.

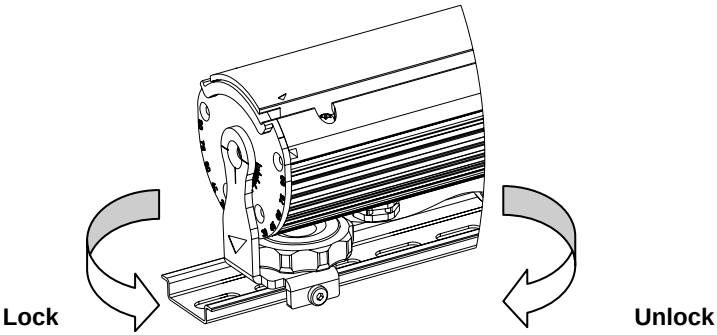

Figure 5: Releasing and tighten the tilt locking lock

Mounting the Tripix Power

The Tripix Power conforms to IP20 and is for indoor use only. Fasten the Tripix Power securely to a flat surface in a location that is accessible for service. To mount it, use M5 screws in the four mounting holes.

Respect all local safety, fire and building regulations governing the installation of electrical equipment in cavities and plenums. Do not expose to moisture. Allow free airflow and at least 5 cm (2 in.) of free space around the device. Allow sufficient ventilation to ensure that the ambient temperature will not exceed 40° C (104° F).

Connections - general

Tripix fixtures have cable tails with 13-pin DIN connectors that are waterproof to IP66 for combined data and power interconnection. The connector clip rings provided must be screwed onto connectors until *two* clicks have been heard to lock connectors together and ensure a permanent waterproof seal.

Connection overview

Figure 6 gives an overview of system layout and cable connections:

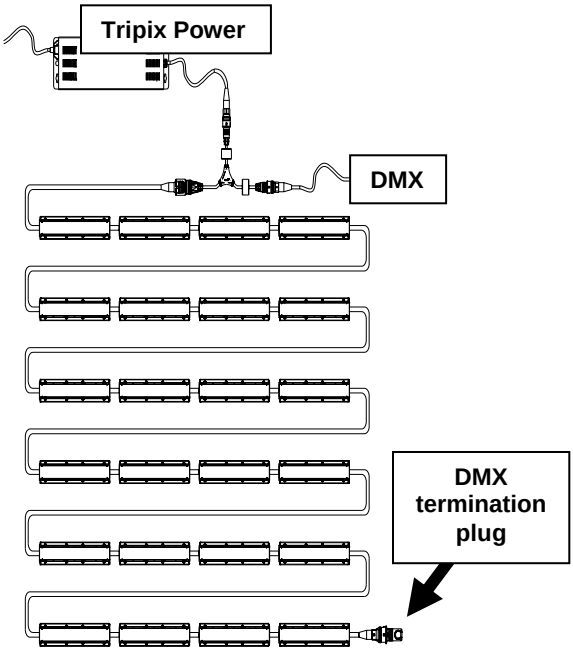

Figure 6: Schematic cable and device layout

Warning! Do not exceed the maximum permitted number of fixtures per Tripix Power output channel, i.e. 24 Tripix 300 fixtures or 6 Tripix 1200 fixtures or the mixture of Tripix 300 and Tripix 1200 fixtures that not exceed 7.2 meters for one Tripix Power.

AC power

Warning! Read "Safety Information" on page 3 before attempting to install this product. Lock out power to the entire installation before working on cables and connections or removing any cover.

Warning! The Tripix Power is switch-selectable within the ranges 100-120 and 200-240 VAC nominal, 50/60 Hz. Do not connect to power at any other voltage or frequency. Check that the switch is correctly positioned to match the local voltage as described in the Tripix Power user manual before connecting to power.

Warning! Electrical installation must be carried out by qualified professionals only.

Warning! The electrical equipment and cable used to supply the Tripix system with power must be in perfect condition, be adequately dimensioned for current requirements and respect maximum cable run lengths.

Warning! For protection from dangerous electric shock, the Tripix Power must be grounded (earthed). The AC power distribution system must be fitted with current overload and ground-fault (earth-fault) circuit breakers as well as a means to isolate the Tripix Power from power and lock out power during service.

Important! Do not connect the Tripix system to an electrical dimmer system. Doing so can damage the electronics.

If you require help in planning or dimensioning the power distribution system, please contact your Martin supplier for assistance.

If there is a break or cut at any point in a cable (for example at a connection point), and if this is exposed to water, moisture can be drawn up the inside of the cable due to the vacuum effect of temperature fluctuations during operation.

The Tripix Power is protected by a 6.3 amp slow-blow primary fuse located on the Tripix Power.

Connecting to power

The Tripix Power is supplied with an IEC power cable ready for connection to a single-phase 3-wire (live, neutral, ground/earth) power distribution system. The Tripix Power has a switch that must be correctly set to match the local voltage in the ranges 100-120 and 200-240 VAC nominal, 50/60 Hz.

The Tripix Power has one output channel which can drive up to twenty-four Tripix 300s or six Tripix 1200s, or a mixture of Tripix 300 and Tripix 1200 fixtures that does not exceed 7.2 meters.

Details of standard US and EU conductor identification systems are given in Table 1.

Wire color (US system)	Wire color (EU system)	Conductor	Symbol	Screw (US)
black	**brown**	**live**	**L**	**yellow or brass**
white	**blue**	**neutral**	**N**	**silver**
green	**yellow/green**	**ground (earth)**	⏚	**green**

Table 1: Conductor identification

Important! Check that all installation work is completed and carry out appropriate tests and safety checks before applying power.

Power plug

If you decide to fit the supplied power cable tail with a plug that is suitable for your AC mains power outlets, install a grounding-type (earthed) plug following the plug manufacturer's instructions.

Table 1 shows some possible pin identification schemes; if pins are not clearly identified, or if you have any doubts about proper installation, consult a qualified electrician.

Installation setup

Important! Read this description carefully before applying power. Incorrect configuration of the Tripix system may permanently damage the Tripix fixture.

The distance between fixtures can be extended by using the Tripix Cable Adapter, IP66, Male+Female only (P/N 91611323).

A Tripix DMX Input Adapter (P/N 91611337) is necessary for external DMX control and fixture configuration via MUM. It is not supplied as standard and needs to be ordered separately.

The Tripix system consists of:

- The Tripix Power, a power supply that provides fixtures with power at 48 V DC.
- A Power Inserter 3-way cable (see Figure 7), P/N 91611339, that is used to connect a Tripix Power device and a DMX signal to Tripix fixtures.

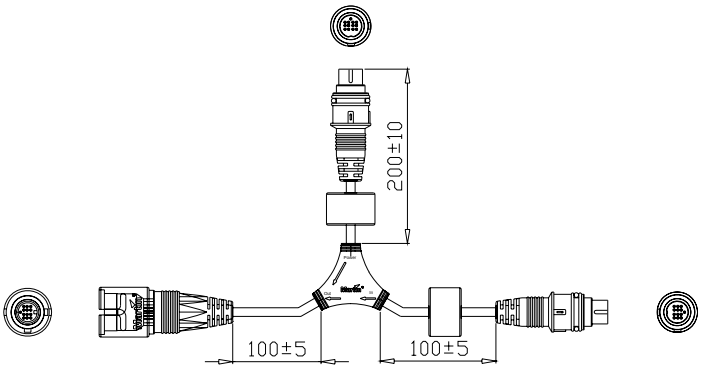

Figure 7: Tripix Power Inserter Cable

Connection to power, fixtures and DMX is indicated on the Power Inserter (see Figure 8). The DMX signal runs from “In” to “Out”; The Tripix Power is connected to the plug marked “Power”, and Tripix fixtures are connected to the end marked “Out”.

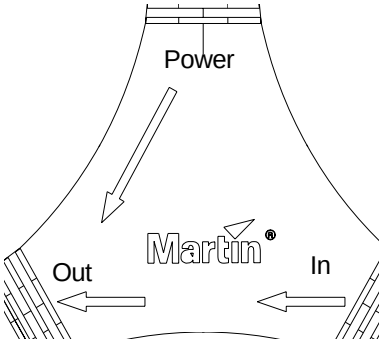

Figure 8: Connection instructions on Power Inserter

- A DMX Input cable, P/N 91611337, that must be connected to the Power Inserter cable for connection to a 3-pin XLR DMX output if DMX control is required. This adapter cable must be ordered separately.

Install the system following the rules below:

1. One Tripix Power must be connected to the maximum permitted number of fixtures as one group. The DMX signal can be connected between groups as shown in Figure 9.

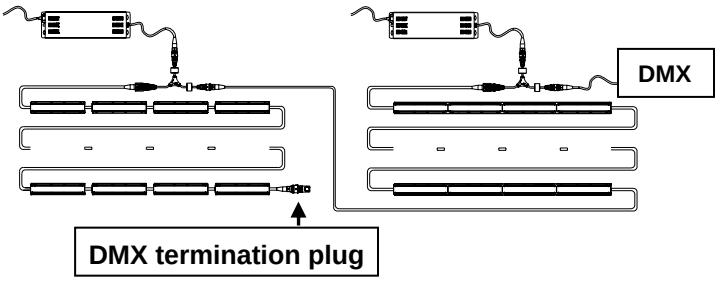

Figure 9: Connection of groups

2. See Figure 10. When all groups of fixtures are connected correctly, connect a Martin cable-mounted 13-pin DIN male DMX Termination Plug (P/N 91611336) in the DMX output of the last fixture of each separate chain of fixtures.

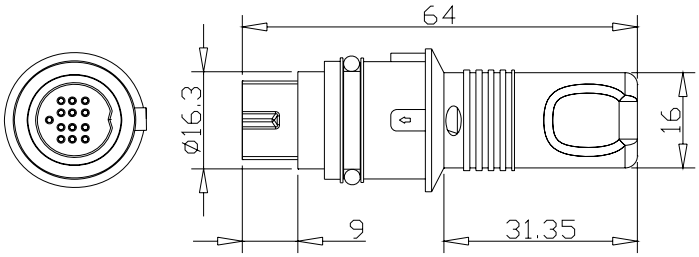

Figure 10: DMX termination plug

3. For DMX control and remote configuration via MUM, connect a DMX Input Adapter to the Power Inserter.
4. Use a three-wire power cable, cable diameter based on the lengths below.

Total Length	Cable specification
1 - 15 m (3.3 - 49 ft.)	IP66 extension cable or 16 AWG or 1.5mm^2
15 - 40 m (49 - 131 ft.)	14 AWG or 1.5mm^2
40 - 80 m (131 – 262 ft.)	12 AWG or 2.5mm^2

5. Use CAT5 or better data cable.
6. See Figures 11 and 12. If you need to extend the distance between fixtures, use a set of Tripix Cable Adapters, IP66, Male+Female (P/N 91611323).
7. When installing fixtures outdoors or in a wet or damp environment, install each cable adapter inside an IP66-rated electrical junction box (not provided). Ensure that all cable grommets are completely sealed against moisture and dust. Failure to seal the box can lead to damage and risk of electric shock! Use only cable and junction boxes that are approved for installation and conform to all local

and national building codes.

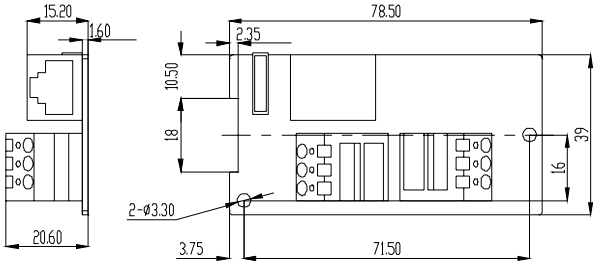

Figure 11: Cable Adapter IP66 Male+Female

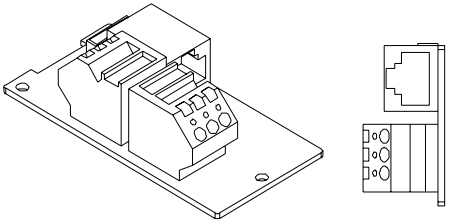

Figure 12: CAT5 cable and power cable connections

8. See Figures 13 and 14. When extending the distance between Tripix Power and the Power Inserter cable, only a power cable (arrowed) is needed as no data is transferred.

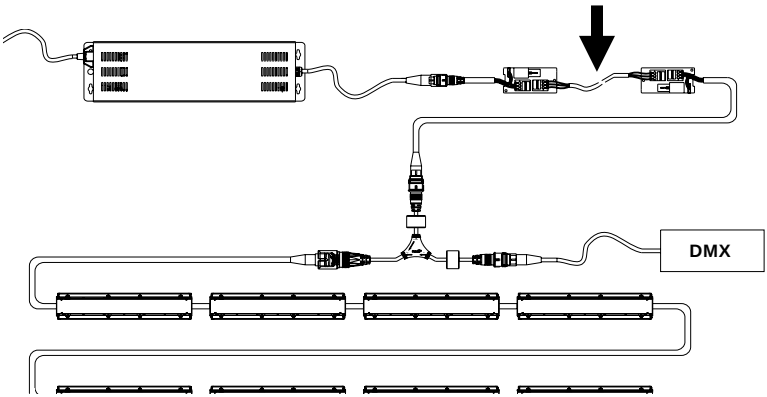

Figure 13: Extending Tripix Power and Power Inserter

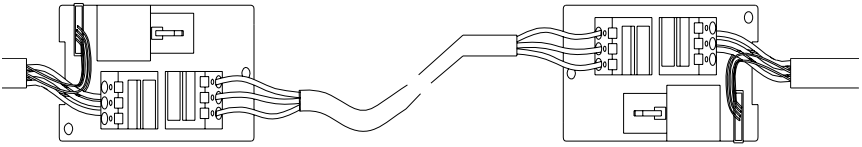

Figure 14: Only Power cable needed

9. See Figures 15 and 16. When extending the distance between the Power Inserter cable and the first fixture, install both a CAT5 cable and a power cable (arrowed) in Cable Adapters.

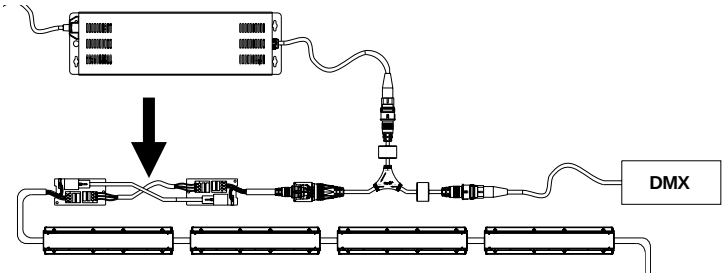

Figure 15: Extending the link to the first fixture

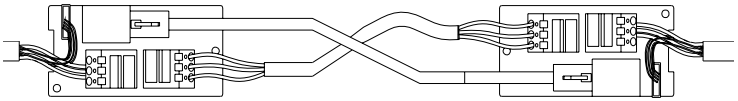

Figure 16: Both power cable and CAT5 cable needed

10. See Figures 17 and 18. When extending the distance between fixtures, install both a CAT5 cable and a power cable (arrowed) in Cable Adapters.

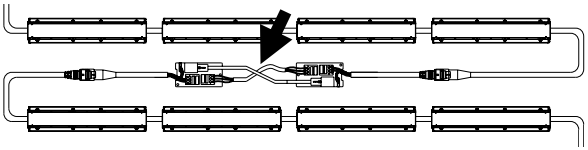

Figure 17: Extending the link

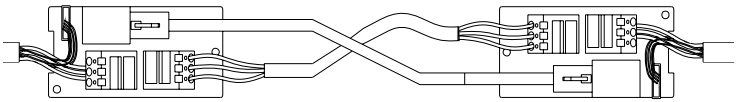

Figure 18: Both power cable and CAT5 cable needed

11. To continue the DMX link to other fixtures with XLR-type DMX input connections, use the Tripix DMX Output cable (P/N 91611338).

Fixture configuration

To set up Tripix fixtures for DMX control or stand-alone operation, you will need:

- A PC running the Martin™ MUM™ (Multi Utility Manager) application, version 1.6.2 or later.
- A Martin™ DABS™ PC-to-fixture hardware interface **Important! Version 1.4 or later of this device is required**.
- The Tripix Power Inserter cable.
- A DMX input adapter cable, available from Martin.

Configuring with MUM

MUM allows you to set DMX addresses, DMX mode and pixel mode. It also allows you to enable and adjust stand-alone operation. See also the MUM user manual.

MUM is supplied in a package together with the Martin DABS interface (P/N 91611144). The latest version of MUM is also available for download free of charge from the Martin website at www.martin.com.

To set up the system:

1. Install Tripix fixtures on a DMX link as described earlier. Do not forget to add the DMX termination plug at the end of the link.
2. Connect a USB port from the PC to the DABS RJ45 port.
3. Connect the XLR output from the DABS to the DMX input adapter cable and then to the DMX Input connector of the Power Inserter cable.
4. Connect the output from the Power Inserter cable to the input cable tail of the first Tripix fixture on the link.
5. Apply power to the Power Inserter cable so that the fixtures on the link are powered, then start up MUM.
6. Carry out setup as described below.

This procedure also works for one single fixture, provided that a DMX Termination Plug is installed on the DMX output cable tail of that fixture.

Communicating with a specific fixture

See Figure 19. To communicate with a specific fixture, open the **Fixture settings** window in MUM. Use the navigation arrows just above the **Refresh** button near the bottom of the screen to scroll between fixtures. Fixtures are numbered sequentially from the first fixture on the DMX link, and the number of the fixture you are communicating with is displayed above the **Reconnect** button.

Configuring DMX operation

The **Fixture settings** window in MUM (see Figure 19) lets you:

- Use the navigation arrows to communicate with a specific fixture and set that fixture's DMX address in the **DMX Address** box, or
- Automatically set DMX addresses for all the Tripix fixtures on the link using the **Auto address sequentially** button. Depending on which **DMX Mode** and **Pixel Mode** is selected, MUM will allow from 3 to 16 DMX channels per fixture and allocate DMX addresses in sequence to all the Tripix fixtures on the link starting with the address shown in the **DMX Address** box, or
- Set all the Tripix fixtures on the link to DMX address 1 using the **Reset DMX address to 1** button. If you choose this option, all the Tripix fixtures will react identically to DMX control and behave as one.

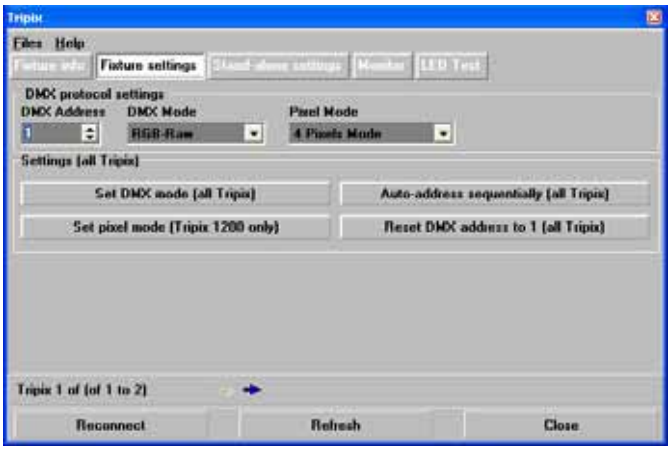

Figure 19: DMX addressing

If you have set a fixture's DMX address manually using the first method listed above, set its DMX and pixel grouping modes before moving on to the next fixture.

Setting DMX mode

Select the DMX color control mode you want to use via MUM (see Figure 20).

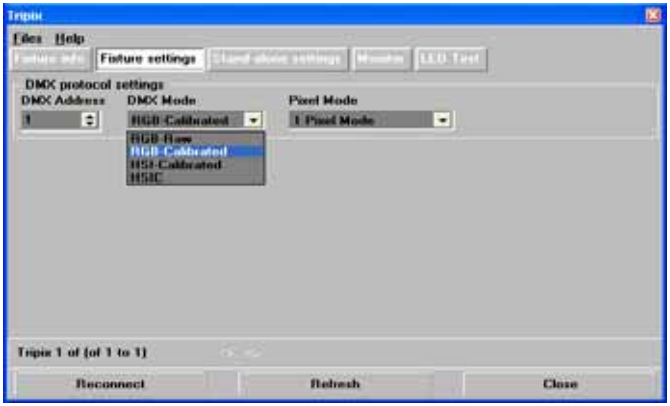

Figure 20: DMX Mode settings

Setting pixel mode

For Tripix 1200 fixtures, select the pixel grouping mode you want to use via MUM (see Figure 21).

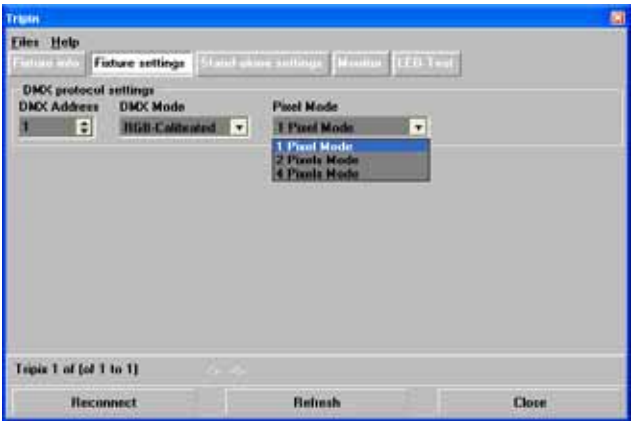

Figure 21: Pixel mode settings

Configuring stand-alone operation

To activate or deactivate stand-alone operation, open the **Stand-alone settings** window in MUM and set **Stand-alone operation** to **Enabled/ Disabled** (see Figure 22).

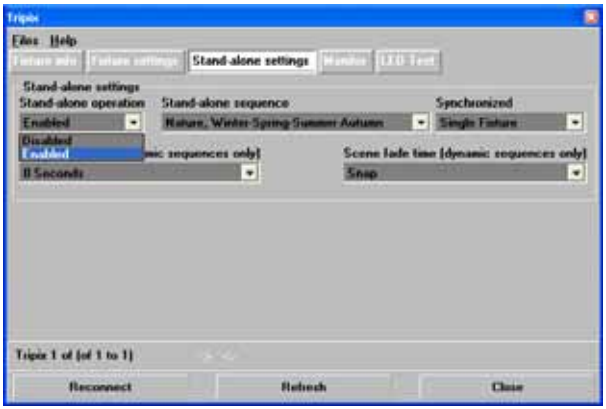

Figure 22: Stand-alone settings

Stand-alone sequence settings

There are 64 stand-alone sequences in total (see Figure 23). Select a sequence to activate it.

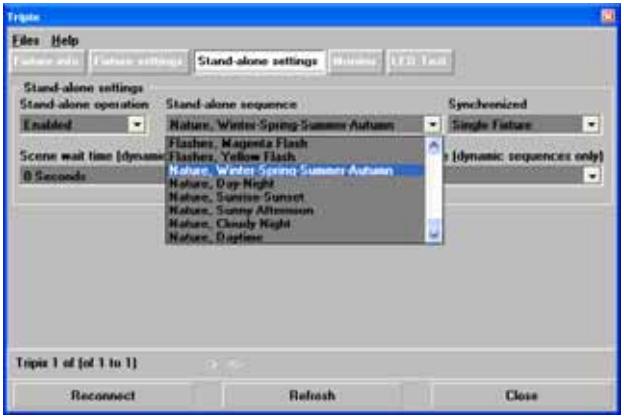

Figure 23: Stand-alone sequence settings

Stand-alone sequence timing

See Figure 24. Stand-alone sequence times can be adjusted in the **Stand-alone settings** window:

- Wait times (the length of time each step in a dynamic scene is displayed) can be set in the **Scene wait time** pull-down box.
- Fade times (the speed of the change from one step in a dynamic scene to the next step) can be set using the **Scene fade time** pull-down box.

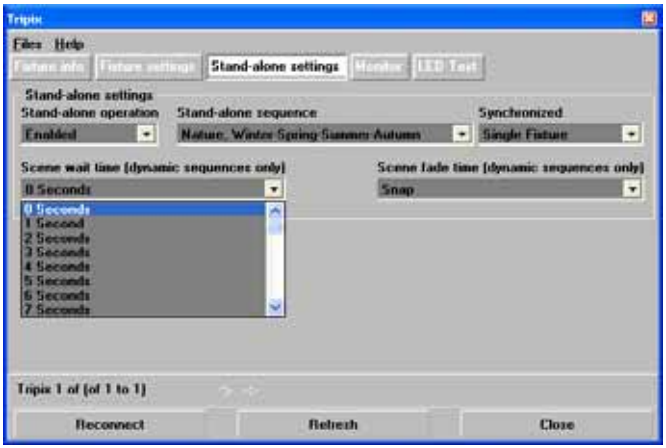

Figure 24: Stand-alone wait and fade times

Stand-alone programs available

The stand-alone programs available are as follows:

Sequence No		Name
0	**SIMPLE COLORS**	ALL OFF
1		RED
2		GREEN
3		BLUE
4		ALL ON
5		CYAN
6		MAGENTA
7		YELLOW
8	**WHITES**	WARM WHITE
9		COOL WHITE
10		COLD WHITE
11		HOT WHITE
12	**TRENDY COLORS**	ORANGE
13		LIME GREEN
14		LEMON YELLOW
15		AQUA BLUE
16		BABY PINK
17		LILAC
18		BLOOD ORANGE
19		FLESH PINK
20		LEAF GREEN
21		PURPLE
22	**SIMPLE DYNAMICS**	RGB 1
23		RGB 2
24		CMY
25		RAINBOW
26		W - R - W - G - W - B
27		W - C - W - M - W - Y
28	**ALTERNATES I**	RED / ORANGE
29		RED / PINK
30		RED / AQUA
31		GREEN / YELLOW
32	**ALTERNATES II**	GREEN / BLUE
33		GREEN / ORANGE
34		BLUE / PURPLE
35		BLUE / ORANGE
36		BLUE / YELLOW

37	**FADES TO WHITE**	RED FADE TO WHITE
38		GREEN FADE TO WHITE
39		BLUE FADE TO WHITE
40		CYAN FADE TO WHITE
41		MAGENTA FADE TO WHITE
42		YELLOW FADE TO WHITE
43	**PULSES**	RED PULSE
44		BLUE PULSE
45		GREEN PULSE
46		CYAN PULSE
47		MAGENTA PULSE
48		YELLOW PULSE
49		WHITE PULSE
50		RGB PULSE
51		CMY PULSE
52	**FLASHES**	RED FLASH
53		BLUE FLASH
54		GREEN FLASH
55		CYAN FLASH
56		MAGENTA FLASH
57		YELLOW FLASH
58	**NATURE**	WINTER-SPRING-SUMMER-AUTUMN
59		DAY-NIGHT
60		SUNRISE-SUNSET
61		SUNNY AFTERNOON
62		CLOUDY NIGHT
63		DAYTIME

Synchronized operation

In synchronized operation, a master fixture playing a stand-alone program relays instructions via DMX that cause slave fixtures connected to the master to run an identical synchronized program.

See Figure 25. The synchronized operation settings are in the **Stand-alone settings** window in MUM.

- In **Single Fixture** mode, a Tripix runs its stand-alone program and ignores all other fixtures
- In **Master** mode, the Tripix sends instructions to slave fixtures so that they run an identical program to the master
- In **Synchronized** mode, the Tripix is a slave and obeys instructions from a master fixture
- Stand-alone settings in the **Synchronized** pull-down box are applied to the fixture you connect to using the navigation arrows.
- Four buttons also allow you to apply synchronized operation settings to all Tripix fixtures on the DMX link. If you select Set **all as single fixtures – synchronize sequence and timing selections**, all fixtures follow the stand-alone program you have set up in MUM: scene changes are synchronized and wait/fade times are identical.

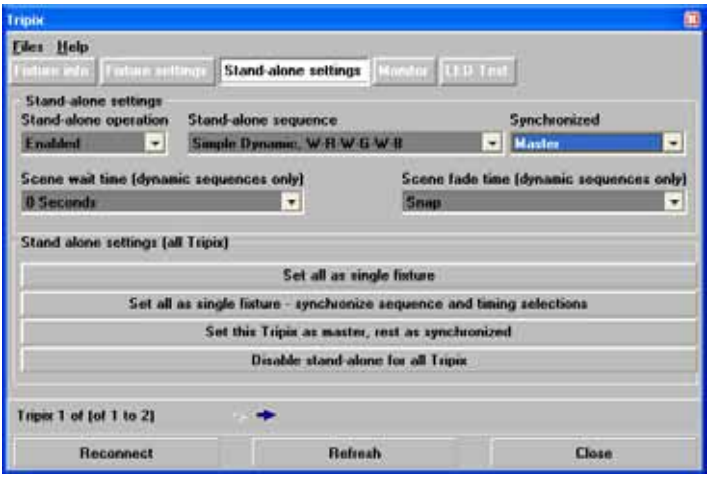

Figure 25: Synchronized operation settings

Important! Set only one fixture on the link as master or fixtures may be damaged.

Operation

Warning! Do not look into the beam at a distance of less than 2.2 meters (7 feet 3 inches) from the front surface of the product. Do not view the light output with optical instruments or any device that may concentrate the beam.

Ambient temperatures

The Tripix system can be operated at ambient temperatures from -30° C (-22° F) to 45° C (113° F).

DMX color control modes

When the Tripix system is set up for DMX-controlled operation, faders on the DMX controller are used to control color and intensity. The control method depends on which color control mode the Tripix system is set to:

RGB (raw and calibrated modes)

Channel	Value	Percentage	Function
1	0-255	0-100%	Red Intensity 0-100%
2	0-255	0-100%	Green Intensity 0-100%
3	0-255	0-100%	Blue Intensity 0-100%

HSI (calibrated)

Channel	Value	Percentage	Function
1	0-255	0-100%	Hue Red>>Orange>>Amber>>Yellow>>Green>>Cyan>>Blue>>Indigo>>Violet>>Magenta>>Red
2	0-255	0-100%	Saturation Zero(White)>>Full
3	0-255	0-100%	Intensity: 0-100%

HSIC (calibrated)

Channel	Value	Percentage	Function
1	0-255	0-100%	Hue Red>>Orange>>Amber>>Yellow >>Green>>Cyan>>Blue>>Indigo >>Violet>>Magenta>>Red
2	0-255	0-100%	Saturation Zero(White)>>Full
3	0-255	0-100%	Intensity: 0-100%
4	0-255	0-100%	Color control 200 – 10 000 K

Pixel grouping mode

If Tripix 1200 fixtures are set to 2 or 4 pixel mode, the DMX channels used are available for each pixel.

For example, a Tripix 1200 in 4-pixel HSIC mode will use 16 channels: the first 4 channels will control HSIC on pixel 1, Channel 5 to 8 will control HSIC on pixel 2, and so on.

Service and maintenance

DANGER! Read "Safety Information" on page 3 before carrying out service or maintenance work on the Tripix system. Lock out power to the entire distribution system and allow fixtures to cool before servicing or opening any cover.

Important! Opening the fixture by anybody else but a Martin Distributor may damage the IP66 seal and will void the warranty!

Important! The Tripix system requires regular service and maintenance to maintain reliable operation and protect the investment it represents. Excessive dirt and particle build-up degrades performance, causes overheating and will damage the Tripix Power and Tripix fixtures. Damage caused by inadequate cleaning or maintenance is not covered by the product warranty.

The service and maintenance procedures described in this section must be carried out by qualified professionals only. Any service procedures not described in this section must be carried out by the Martin Service organization or its authorized agents.

It is Martin policy to use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, optical components in all lighting fixtures are subject to wear and tear over the life of the Tripix fixture, resulting in gradual changes in color rendition, for example. The extent of wear and tear depends heavily on operating conditions and environment, so it is impossible to specify precise lifetimes for optical components.

Cleaning

Warning! Do not use a high-pressure water jet for cleaning.

Regular cleaning is essential for fixture life and performance. Build up of dust and dirt degrades the fixture's light output and cooling ability.

Cleaning schedules will vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the Tripix system. Inspect fixtures within their first few weeks of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation. If in doubt, consult your Martin dealer about a suitable maintenance schedule.

Clean the Tripix Power and the Tripix fixture housing and front cover with a soft cloth dampened with a solution of water and a mild detergent such as car shampoo. Take care not to damage wiring during

cleaning. Do not use products that contain solvents, abrasives or caustic agents for cleaning, as they can cause surface damage to the housing and the front cover.

Fixture information and monitoring

See Figure 26. The **Fixture info** window displays basic information for the fixture. Power-on hours and LED operation hours are also displayed. Two counters are available for each: an absolute and a resettable counter:

Figure 26: Fixture info window

See Figure 27. The Tripix displays voltage readouts for 48 V and 5 V components as well as temperature readouts for LEDs and the main PCB in the **Monitor** window:

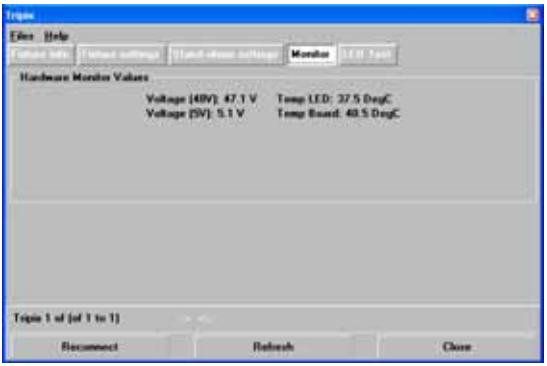

Figure 27: Monitor window

Testing

See Figure 28.The **LED Test** window in MUM gives a quick method of testing LED output at 100% intensity without a DMX controller:

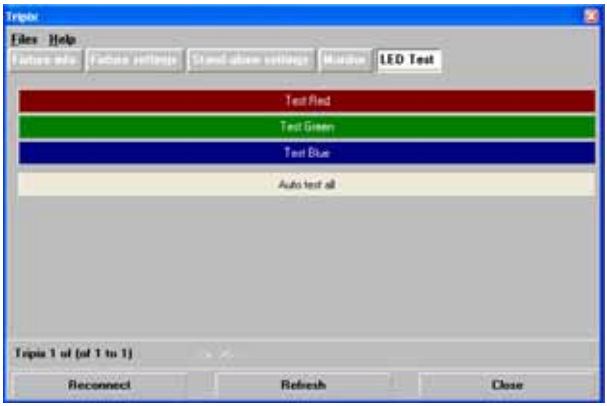

Figure 28: LED test window

Fuse replacement

DANGER! Lock out power to the entire distribution system before servicing or opening any cover. Replace fuses with ones of the same type and rating only. Do not attempt to bypass a fuse.

The Tripix Power is protected by a 6.3 amp slow-blow primary fuse. If the Tripix Power is completely dead, the primary fuse may have blown.

To replace the fuse:

1. Disconnect the Tripix Power from power and allow to cool.
2. See Figure 29. Open the fuseholder located next to the power cable entry with a flathead screwdriver and remove the fuse.
3. Replace the fuse with one of the same type and rating. Fuse ratings are listed on serial number labels and under “Electrical” on page 39.
4. Replace the fuseholder.
5. If fuses continue to blow, there is probably a fault. Disconnect the device from power and data and contact a Martin service technician for assistance.

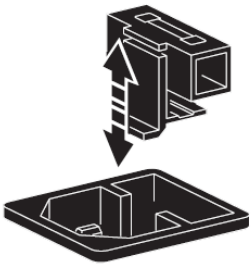

Figure 29: Fuseholder

Software installation

It may be necessary to upload new software (i.e. firmware) to the Tripix fixtures if you believe that the product has a software-related fault or if you want to update to a newer version. Software updates are available from the Martin website (http://www.martin.com) and can be installed via the DMX data link with the following items:

- The Martin Uploader application, version 5.0 or later, downloadable free of charge from the “After-Sales” area of the Martin website.
- The Tripix main software update file, downloadable free of charge from the “After-Sales” area of the Martin website (this file can be downloaded automatically from within the Martin Uploader application).
- A Martin Universal USB/DMX Interface (part number: 90702045) or similar PC/fixture hardware interface and a Windows PC.

Installing software

To install software in the Tripix fixtures:

1. Connect the PC and Universal USB/DMX Interface to the Tripix fixture data input connector using the DMX input cable and an RJ45 to 3-pin XLR adapter.
2. Upload the software as described in the Martin Uploader help file or user documentation. The LED will flash during the upload.
3. When the upload is completed, the fixture will go back to its status before the upload.
4. Software uploads can fail (most failures are caused by interference on the data link). If the upload fails. Cycle power off and on and repeat the upload. If the problem persists, contact the Martin Service organization or its authorized agents for assistance.

Troubleshooting

Problem	Probable cause(s)	Remedy
Tripix Power and fixture are completely dead	No power to Tripix Power	Check power and connections.
	Primary fuse blown (located in fuse holder on front panel of Tripix Power)	Isolate fixture from power. Check fuse and replace.
One or more fixtures respond incorrectly to control or do not respond at all	Fault on DMX link	Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.
	Incorrect DMX addressing	Check Tripix fixture is set to correct DMX mode. Check Tripix fixture's DMX address and channels assigned to it at controller.
	Other device on DMX link defective	Bypass devices on DMX link until the faulty device has been identified. Have faulty device tested and serviced by Martin service technician or device supplier.
	Wrong fixture configuration	Check the fixture configuration and if necessary use MUM to reconfigure.
LEDs cut out intermittently	Tripix Power is too hot	Ensure free airflow around Tripix Power. Clean the Tripix Power. Check that ambient temperature does not exceed maximum permitted level. Contact Martin for service.

Table 2: Troubleshooting

Specifications

Physical

Tripix Fixture

Length..... Tripix 300: 300 mm (11.8 in.)
Tripix 1200: 1200 mm (47.2 in.)
Width ..... 61 mm (2.4 in.) including mounting bracket
Height ..... 81.4 mm (2.8 in.) including mounting bracket and DIN rail
Weight ..... Tripix 300: 1200 g
..... Tripix 1200: 4230 g

Tripix Power

Length..... 447 mm (17.6 in.)
Width .....141 mm (5.5 in.)
Height .....68 mm (2.7 in.)
Weight ..... 5.8 kg

Dynamic Effects

Color mixing..... RGB
Red .....0 - 100%
Green.....0 - 100%
Blue .....0 - 100%
Color temperature control ..... 2 000 - 10 000 K

Control and Programming

Color control modes..... RGB (raw and calibrated), HSI and HSIC (calibrated)
Control options..... DMX, stand-alone and master/slave
Protocol ..... USITT DMX512-A
Firmware update..... Serial upload via DMX link

Optics

Light source .....3-1 LED
Total LED power ..... Tripix 300: 24 W approx., Tripix 1200: 82 W approx.

Total output per 300 mm segment

Narrow (24° half-peak)..... 360 lm

Total output per 1200 mm segment

Narrow (24° half-peak)..... 1440 lm

Construction

Tripix Fixture

Housing ..... Aluminum
Finish ..... Clear anodized
Front cover ..... PMMA
IP rating ..... IP 66

Tripix Power

Housing ..... Steel
Finish ..... Grey coated
IP rating ..... For indoor use only

Installation

Orientation ..... Any
Vertical aiming ..... +/- 95°
Mounting points ..... Mounting brackets or 35 mm DIN top-hat rail

Maximum connected number of fixtures per Tripix Power

Tripix 300 24
Tripix 1200 6
Mixture of Tripix 300 and 1200 ..... 7.2 meters

Connections

Tripix Power mains input ..... Male (C14) IEC socket
Tripix fixture power and DMX combined interconnection ..... 13-pin DIN

Electrical

AC power ..... switch-selectable 100-120/200-240 VAC nominal, 50/60 Hz
Main fuse ..... T 6.3 A (slow blow)

Thermal

Cooling ..... All devices convection-cooled
Maximum ambient temperature (Ta max.)
Fixture ..... 45° C (113° F)
Tripix Power unit ..... 40° C (104° F)
Minimum ambient temperature (Ta min.) ..... -30° C (-22° F)
Maximum surface temperature, steady state, Ta=45° C
Fixture ..... 65° C (149° F)
Tripix Power unit ..... 55° C (131° F)

Approvals

LED safety..... IEC 60825-1, 2001; IEC 62471, 2006
EU safety .....EN 60598-1, EN 60598-2-1
EU EMC.....EN 55 015, EN 55 103, EN 61 000-3
US safety..... UL 1598
Canadian safety …….....CAN/CSA C.22.2 No. 250

Included Items

Tripix 300 and Tripix 1200

1 x fixture
2 x short Martin DIN Rail
1 x safety leaflet

Tripix Power

1 x Tripix Power
1 x Power Inserter cable
1 x user manual
1 x Termination Plug, IP66
2 x power cables: EU with Schuko plug, US without plug

Accessories

0.5 m Extension Cable..... P/N 91611335
1.0 m Extension Cable..... P/N 91611334
5.0 m Extension Cable..... P/N 91611333
Tripix Diffusers Narrow, includes eight 304 mm (12.0 in.) diffusers, installation by Martin Service only..... P/N 91611329
Tripix Diffusers Medium, includes eight 304 mm (12.0 in.) diffusers, installation by Martin Service only..... P/N 91611330
Tripix Diffusers Wide, includes eight 304 mm (12.0 in.) diffusers, installation by Martin Service only..... P/N 91611331
Tripix Power Inserter..... P/N 91611339
Short Martin DIN rail 35 mm ..... P/N 23819560
Tripix DMX Termination Plug, IP66..... P/N 91611336
Tripix Front Cover ..... P/N 91611332
Tripix DMX Input Adapter (3-pin male XLR to 13-pin female DIN)..... P/N 91611337

Tripix DMX Output Adapter
(13-pin male DIN to 3-pin female XLR) ..... P/N 91611338

Cable Adapter, IP66, Male+Female ..... P/N 91611323

Cartridge fuse 5 x 20mm, T 6.3 A ..... P/N 05020060

Different diffusers can be ordered and installed by a Martin Distributor only. Please indicate angles and models at time of order.

Related Items

Martin DABS1™ Hardware Interface (USB-XLR) + MUM CD ..... P/N 91611144

Martin Universal USB/DMX Converter (Lightjockey/Maxxyz PC). P/N 90702055

Martin ColorFox VX01 ..... P/N 90734500

Martin LightFox ..... P/N 90734540

Ordering Information

Tripix 300 ..... P/N 90354520

Tripix 1200 ..... P/N 90354530

Tripix Power ..... P/N 90760310

Custom colors are available by special order – please contact your Martin distributor for details.

Specifications subject to change without notice. Please see www.martin.com for latest product information and specifications.

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